

SEQUENCE LISTING

<110> FibroGen, Inc.
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 Chang, Robert
 Olson, David
 Polarek, James

<120> DRY TISSUE SEALANT COMPOSITIONS

<130> FP0302 US

<150> 60/415,309

<151> 2002-09-30

<160> 4

<170> PatentIn version 3.2

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<212> PRT

<213> Homo sapiens

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<222> (1)..(14)

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<222> (15)..(1043)

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Gly Thr Ser Gly His Pro Gly Ser Pro Gly Ser Pro Gly Tyr Gln Gly
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Pro Pro Gly Glu Pro Gly Gln Ala Gly Pro Ser Gly Pro Pro Gly Pro
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Pro Gly Ala Ile Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly Glu Ser
 65 70 75 80

Gly Arg Pro Gly Arg Pro Gly Glu Arg Gly Leu Pro Gly Pro Pro Gly
 85 90 95

Ile Lys Gly Pro Ala Gly Ile Pro Gly Phe Pro Gly Met Lys Gly His
 100 105 110

Arg Gly Phe Asp Gly Arg Asn Gly Glu Lys Gly Glu Thr Gly Ala Pro
 115 120 125

Gly Leu Lys Gly Glu Asn Gly Leu Pro Gly Glu Asn Gly Ala Pro Gly
 130 135 140

Pro Met Gly Pro Arg Gly Ala Pro Gly Glu Arg Gly Arg Pro Gly Leu
 145 150 155 160

Pro Gly Ala Ala Gly Ala Arg Gly Asn Asp Gly Ala Arg Gly Ser Asp
 165 170 175

Gly Gln Pro Gly Pro Pro Gly Pro Pro Gly Thr Ala Gly Phe Pro Gly
 180 185 190

Ser Pro Gly Ala Lys Gly Glu Val Gly Pro Ala Gly Ser Pro Gly Ser
 195 200 205

Asn Gly Ala Pro Gly Gln Arg Gly Glu Pro Gly Pro Gln Gly His Ala
 210 215 220

Gly Ala Gln Gly Pro Pro Gly Pro Pro Gly Ile Asn Gly Ser Pro Gly
 225 230 235 240

Gly Lys Gly Glu Met Gly Pro Ala Gly Ile Pro Gly Ala Pro Gly Leu
 245 250 255

Met Gly Ala Arg Gly Pro Pro Gly Pro Ala Gly Ala Asn Gly Ala Pro
 260 265 270

Gly Leu Arg Gly Gly Ala Gly Glu Pro Gly Lys Asn Gly Ala Lys Gly
 275 280 285

Glu Pro Gly Pro Arg Gly Glu Arg Gly Glu Ala Gly Ile Pro Gly Val
 290 295 300

Pro Gly Ala Lys Gly Glu Asp Gly Lys Asp Gly Ser Pro Gly Glu Pro
 305 310 315 320

Gly Ala Asn Gly Leu Pro Gly Ala Ala Gly Glu Arg Gly Ala Pro Gly
 325 330 335

Phe Arg Gly Pro Ala Gly Pro Asn Gly Ile Pro Gly Glu Lys Gly Pro
 340 345 350

Ala Gly Glu Arg Gly Ala Pro Gly Pro Ala Gly Pro Arg Gly Ala Ala
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Gly Glu Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly Met Arg Gly
 370 375 380

Met Pro Gly Ser Pro Gly Gly Pro Gly Ser Asp Gly Lys Pro Gly Pro
 385 390 395 400

Pro Gly Ser Gln Gly Glu Ser Gly Arg Pro Gly Pro Pro Gly Pro Ser
 405 410 415

Gly Pro Arg Gly Gln Pro Gly Val Met Gly Phe Pro Gly Pro Lys Gly
 420 425 430

Asn Asp Gly Ala Pro Gly Lys Asn Gly Glu Arg Gly Gly Pro Gly Gly
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Pro Gly Pro Gln Gly Pro Pro Gly Lys Asn Gly Glu Thr Gly Pro Gln
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Gly Pro Pro Gly Pro Thr Gly Pro Gly Gly Asp Lys Gly Asp Thr Gly
 465 470 475 480

Pro Pro Gly Pro Gln Gly Leu Gln Gly Leu Pro Gly Thr Gly Gly Pro
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Pro Gly Glu Asn Gly Lys Pro Gly Glu Pro Gly Pro Lys Gly Asp Ala
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Glu Arg Gly Pro Pro Gly Leu Ala Gly Ala Pro Gly Leu Arg Gly Gly
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Ala Gly Pro Pro Gly Pro Glu Gly Gly Lys Gly Ala Ala Gly Pro Pro
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Gly Pro Pro Gly Ala Ala Gly Thr Pro Gly Leu Gln Gly Met Pro Gly
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Glu Arg Gly Gly Leu Gly Ser Pro Gly Pro Lys Gly Asp Lys Gly Glu
 580 585 590

Pro Gly Gly Pro Gly Ala Asp Gly Val Pro Gly Lys Asp Gly Pro Arg
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Gly Pro Thr Gly Pro Ile Gly Pro Pro Gly Pro Ala Gly Gln Pro Gly
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Asp Lys Gly Glu Gly Gly Ala Pro Gly Leu Pro Gly Ile Ala Gly Pro
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Arg Gly Ser Pro Gly Glu Arg Gly Glu Thr Gly Pro Pro Gly Pro Ala
 645 650 655

Gly Phe Pro Gly Ala Pro Gly Gln Asn Gly Glu Pro Gly Gly Lys Gly
 660 665 670

Glu Arg Gly Ala Pro Gly Glu Lys Gly Glu Gly Gly Pro Pro Gly Val
 675 680 685

Ala Gly Pro Pro Gly Gly Ser Gly Pro Ala Gly Pro Pro Gly Pro Gln
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Gly Val Lys Gly Glu Arg Gly Ser Pro Gly Gly Pro Gly Ala Ala Gly
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Phe Pro Gly Ala Arg Gly Leu Pro Gly Pro Pro Gly Ser Asn Gly Asn
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Pro Gly Pro Pro Gly Pro Ser Gly Ser Pro Gly Lys Asp Gly Pro Pro
 740 745 750

Gly Pro Ala Gly Asn Thr Gly Ala Pro Gly Ser Pro Gly Val Ser Gly
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Pro Lys Gly Asp Ala Gly Gln Pro Gly Glu Lys Gly Ser Pro Gly Ala
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Gln Gly Pro Pro Gly Ala Pro Gly Pro Leu Gly Ile Ala Gly Ile Thr
 785 790 795 800

Gly Ala Arg Gly Leu Ala Gly Pro Pro Gly Met Pro Gly Pro Arg Gly

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Gly Leu Ala Gly Thr Ala Gly Glu Pro Gly Arg Asp Gly Asn Pro Gly 850 855 860		
Ser Asp Gly Leu Pro Gly Arg Asp Gly Ser Pro Gly Gly Lys Gly Asp 865 870 875 880		
Arg Gly Glu Asn Gly Ser Pro Gly Ala Pro Gly Ala Pro Gly His Pro 885 890 895		
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Glu Ser Gly Pro Ala Gly Pro Ala Gly Ala Pro Gly Pro Ala Gly Ser 915 920 925		
Arg Gly Ala Pro Gly Pro Gln Gly Pro Arg Gly Asp Lys Gly Glu Thr 930 935 940		
Gly Glu Arg Gly Ala Ala Gly Ile Lys Gly His Arg Gly Phe Pro Gly 945 950 955 960		
Asn Pro Gly Ala Pro Gly Ser Pro Gly Pro Ala Gly Gln Gln Gly Ala 965 970 975		
Ile Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly Pro Ser 980 985 990		
Gly Pro Pro Gly Lys Asp Gly Thr Ser Gly His Pro Gly Pro Ile Gly 995 1000 1005		
Pro Pro Gly Pro Arg Gly Asn Arg Gly Glu Arg Gly Ser Glu Gly 1010 1015 1020		
Ser Pro Gly His Pro Gly Gln Pro Gly Pro Pro Gly Pro Pro Gly 1025 1030 1035		
Ala Pro Gly Pro Cys Cys Gly Gly Val Gly Ala Ala Ala Ile Ala 1040 1045 1050		

Gly Ile	Gly Gly Glu Lys	Ala	Gly Gly Phe Ala	Pro	Tyr Tyr Gly
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Asp Glu	Pro Met Asp Phe	Lys	Ile Asn Thr Asp	Glu	Ile Met Thr
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Ser Leu	Lys Ser Val Asn	Gly	Gln Ile Glu Ser	Leu	Ile Ser Pro
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Asp Gly	Ser Arg Lys Asn	Pro	Ala Arg Asn Cys	Arg	Asp Leu Lys
1100		1105		1110	
Phe Cys	His Pro Glu Leu	Lys	Ser Gly Glu Tyr	Trp	Val Asp Pro
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Asn Gln	Gly Cys Lys Leu	Asp	Ala Ile Lys Val	Phe	Cys Asn Met
1130		1135		1140	
Glu Thr	Gly Glu Thr Cys	Ile	Ser Ala Asn Pro	Leu	Asn Val Pro
1145		1150		1155	
Arg Lys	His Trp Trp Thr	Asp	Ser Ser Ala Glu	Lys	Lys His Val
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Trp Phe	Gly Glu Ser Met	Asp	Gly Gly Phe Gln	Phe	Ser Tyr Gly
1175		1180		1185	
Asn Pro	Glu Leu Pro Glu	Asp	Val Leu Asp Val	Gln	Leu Ala Phe
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Leu Arg	Leu Leu Ser Ser	Arg	Ala Ser Gln Asn	Ile	Thr Tyr His
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Cys Lys	Asn Ser Ile Ala	Tyr	Met Asp Gln Ala	Ser	Gly Asn Val
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Lys Lys	Ala Leu Lys Leu	Met	Gly Ser Asn Glu	Gly	Glu Phe Lys
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Ala Glu	Gly Asn Ser Lys	Phe	Thr Tyr Thr Val	Leu	Glu Asp Gly
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Cys Thr	Lys His Thr Gly	Glu	Trp Ser Lys Thr	Val	Phe Glu Tyr
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Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp Ile Ala Pro
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Pro Val Cys Phe Leu
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Gly Pro Pro Gly Ala Ile Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly
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Glu Ser Gly Arg Pro Gly Arg Pro Gly Glu Arg Gly Leu Pro Gly Pro
 65 70 75 80

Pro Gly Ile Lys Gly Pro Ala Gly Ile Pro Gly Phe Pro Gly Met Lys
 85 90 95

Gly His Arg Gly Phe Asp Gly Arg Asn Gly Glu Lys Gly Glu Thr Gly
 100 105 110

Ala Pro Gly Leu Lys Gly Glu Asn Gly Leu Pro Gly Glu Asn Gly Ala
 115 120 125

Pro Gly Pro Met Gly Pro Arg Gly Ala Pro Gly Glu Arg Gly Arg Pro
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Gly Leu Pro Gly Ala Ala Gly Ala Arg Gly Asn Asp Gly Ala Arg Gly
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Ser Asp Gly Gln Pro Gly Pro Pro Glv Pro Pro Glv Thr Ala Gly Phe

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Pro Gly Gly Lys Gly Glu Met Gly Pro Ala Gly Ile Pro Gly Ala Pro		
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Gly Leu Met Gly Ala Arg Gly Pro Pro Gly Pro Ala Gly Ala Asn Gly		
245	250	255
Ala Pro Gly Leu Arg Gly Gly Ala Gly Glu Pro Gly Lys Asn Gly Ala		
260	265	270
Lys Gly Glu Pro Gly Pro Arg Gly Glu Arg Gly Glu Ala Gly Ile Pro		
275	280	285
Gly Val Pro Gly Ala Lys Gly Glu Asp Gly Lys Asp Gly Ser Pro Gly		
290	295	300
Glu Pro Gly Ala Asn Gly Leu Pro Gly Ala Ala Gly Glu Arg Gly Ala		
305	310	315
Pro Gly Phe Arg Gly Pro Ala Gly Pro Asn Gly Ile Pro Gly Glu Lys		
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Ala Ala Gly Glu Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly Met		
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Arg Gly Met Pro Gly Ser Pro Gly Gly Pro Gly Ser Asp Gly Lys Pro		
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Pro Ser Gly Pro Arg Gly Gln Pro Gly Val Met Gly Phe Pro Gly Pro		
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Gly Gly Pro Gly Pro Gln Gly Pro Pro Gly Lys Asn Gly Glu Thr Gly
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Pro Gln Gly Pro Pro Gly Pro Thr Gly Pro Gly Gly Asp Lys Gly Asp
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Thr Gly Pro Pro Gly Pro Gln Gly Leu Gln Gly Leu Pro Gly Thr Gly
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Gly Pro Pro Gly Glu Asn Gly Lys Pro Gly Glu Pro Gly Pro Lys Gly
 485 490 495

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 610 615 620

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 740 745 750

Ser Gly Pro Lys Gly Asp Ala Gly Gln Pro Gly Glu Lys Gly Ser Pro
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Gly Ala Gln Gly Pro Pro Gly Ala Pro Gly Pro Leu Gly Ile Ala Gly
 770 775 780

Ile Thr Gly Ala Arg Gly Leu Ala Gly Pro Pro Gly Met Pro Gly Pro
 785 790 795 800

Arg Gly Ser Pro Gly Pro Gln Gly Val Lys Gly Glu Ser Gly Lys Pro
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Leu Pro Gly Leu Ala Gly Thr Ala Gly Glu Pro Gly Arg Asp Gly Asn
 835 840 845

Pro Gly Ser Asp Gly Leu Pro Gly Arg Asp Gly Ser Pro Gly Gly Lys
 850 855 860

Gly Asp Arg Gly Glu Asn Gly Ser Pro Gly Ala Pro Gly Ala Pro Gly
 865 870 875 880

His Pro Gly Pro Pro Gly Pro Val Gly Pro Ala Gly Lys Ser Gly Asp
 885 890 895

Arg Gly Glu Ser Gly Pro Ala Gly Pro Ala Gly Ala Pro Gly Pro Ala
 900 905 910

Gly Ser Arg Gly Ala Pro Gly Pro Gln Gly Pro Arg Gly Asp Lys Gly
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Glu Thr Gly Glu Arg Gly Ala Ala Gly Ile Lys Gly His Arg Gly Phe
 930 935 940

Pro Gly Asn Pro Gly Ala Pro Gly Ser Pro Gly Pro Ala Gly Gln Gln
 945 950 955 960

Gly Ala Ile Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly
 965 970 975

Pro Ser Gly Pro Pro Gly Lys Asp Gly Thr Ser Gly His Pro Gly Pro
 980 985 990

Ile Gly Pro Pro Gly Pro Arg Gly Asn Arg Gly Glu Arg Gly Ser Glu
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 35 40 45

Pro Pro Gly Glu Pro Gly Gln Ala Gly Pro Ser Gly Pro Pro Gly Pro
 50 55 60

Pro Gly Ala Ile Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly Glu Ser
 65 70 75 80

Gly Arg Pro Gly Arg Pro Gly Glu Arg Gly Leu Pro Gly Pro Pro Gly
 85 90 95

Ile Lys Gly Pro Ala Gly Ile Pro Gly Phe Pro Gly Met Lys Gly His
 100 105 110

Arg Gly Phe Asp Gly Arg Asn Gly Glu Lys Gly Glu Thr Gly Ala Pro
 115 120 125

Gly Leu Lys Gly Glu Asn Gly Leu Pro Gly Glu Asn Gly Ala Pro Gly
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Pro Met Gly Pro Arg Gly Ala Pro Gly Glu Arg Gly Arg Pro Gly Leu
 145 150 155 160

Pro Gly Ala Ala Gly Ala Arg Gly Asn Asp Gly Ala Arg Gly Ser Asp
 165 170 175

Gly Gln Pro Gly Pro Pro Gly Pro Pro Gly Thr Ala Gly Phe Pro Gly
 180 185 190

Ser Pro Gly Ala Lys Gly Glu Val Gly Pro Ala Gly Ser Pro Gly Ser
 195 200 205

Asn Gly Ala Pro Gly Gln Arg Gly Glu Pro Gly Pro Gln Gly His Ala
 210 215 220

Gly Ala Gln Gly Pro Pro Gly Pro Pro Gly Ile Asn Gly Ser Pro Gly
 225 230 235 240

Gly Lys Gly Glu Met Gly Pro Ala Gly Ile Pro Gly Ala Pro Gly Leu
 245 250 255

Met Gly Ala Arg Gly Pro Pro Gly Pro Ala Gly Ala Asn Gly Ala Pro
 260 265 270

Gly Leu Arg Gly Gly Ala Gly Glu Pro Gly Lys Asn Gly Ala Lys Gly
 275 280 285

Glu Pro Gly Pro Arg Gly Glu Arg Gly Glu Ala Gly Ile Pro Gly Val
 290 295 300

Pro Gly Ala Lys Gly Glu Asp Gly Lys Asp Gly Ser Pro Gly Glu Pro
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Gly Ala Asn Gly Leu Pro Gly Ala Ala Gly Glu Arg Gly Ala Pro Gly
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Phe Arg Gly Pro Ala Gly Pro Asn Gly Ile Pro Gly Glu Lys Gly Pro
 340 345 350

Ala Gly Glu Arg Gly Ala Pro Gly Pro Ala Gly Pro Arg Gly Ala Ala
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Gly Glu Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly Met Arg Gly
 370 375 380

Met Pro Gly Ser Pro Gly Gly Pro Gly Ser Asp Gly Lys Pro Gly Pro
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Pro Gly Ser Gln Gly Glu Ser Gly Arg Pro Gly Pro Pro Gly Pro Ser
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Gly Pro Arg Gly Gln Pro Gly Val Met Gly Phe Pro Gly Pro Lys Gly
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Asn Asp Gly Ala Pro Gly Lys Asn Gly Glu Arg Gly Gly Pro Gly Gly
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Pro Gly Pro Gln Gly Pro Pro Gly Lys Asn Gly Glu Ala Gly Pro Gln
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Gly Pro Pro Gly Pro Ala Gly Pro Gly Gly Asp Lys Gly Asp Thr Gly
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Pro Pro Gly Pro Gln Gly Leu Gln Gly Leu Pro Gly Thr Gly Gly Pro
 485 490 495

Pro Gly Glu Asn Gly Lys Pro Gly Glu Pro Gly Pro Lys Gly Asp Ala
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Ala Gly Pro Pro Gly Pro Glu Gly Gly Lys Gly Ala Ala Gly Pro Pro
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Gly Pro Pro Gly Ala Ala Gly Ala Pro Gly Leu Gln Gly Met Pro Gly
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Glu Arg Gly Gly Leu Gly Ala Pro Gly Pro Lys Gly Asp Lys Gly Glu
 580 585 590

Pro Gly Gly Pro Gly Ala Asp Gly Val Pro Gly Lys Asp Gly Pro Arg
 595 600 605

Gly Pro Ala Gly Pro Ile Gly Pro Pro Gly Pro Ala Gly Gln Pro Gly
 610 615 620

Asp Lys Gly Glu Gly Gly Ala Pro Gly Leu Pro Gly Ile Ala Gly Pro
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Gly Phe Pro Gly Ala Pro Gly Gln Asn Gly Glu Pro Gly Gly Lys Gly
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Glu Arg Gly Ala Pro Gly Glu Lys Gly Glu Gly Gly Pro Pro Gly Val
 675 680 685

Ala Gly Pro Pro Gly Gly Ser Gly Pro Ala Gly Pro Pro Gly Pro Gln
 690 695 700

Gly Val Lys Gly Glu Arg Gly Ser Pro Gly Gly Pro Gly Ala Ala Gly
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Phe Pro Gly Ala Arg Gly Leu Pro Gly Pro Pro Glv Ser Asn Gly Asn

725

730

735

Pro Gly Pro Pro Gly Pro Ser Gly Ser Pro Gly Lys Asp Gly Pro Pro
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Gly Pro Ala Gly Asn Ala Gly Ala Pro Gly Ala Pro Gly Val Ser Gly
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Pro Lys Gly Asp Ala Gly Gln Pro Gly Glu Lys Gly Ser Pro Gly Ala
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Gln Gly Pro Pro Gly Ala Pro Gly Pro Leu Gly Ile Ala Gly Ile Thr
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Gly Ala Arg Gly Leu Ala Gly Pro Pro Gly Met Pro Gly Pro Arg Gly
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Ser Pro Gly Pro Gln Gly Val Lys Gly Glu Ser Gly Lys Pro Gly Ala
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Asn Gly Leu Ser Gly Glu Arg Gly Pro Pro Gly Pro Gln Gly Leu Pro
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Gly Leu Ala Gly Thr Ala Gly Glu Pro Gly Arg Asp Gly Asn Pro Gly
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Ser Asp Gly Leu Pro Gly Arg Asp Gly Ser Pro Gly Gly Lys Gly Asp
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Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp Glu Ile Met Thr
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Asp Gly Ser Arg Lys Asn Pro Ala Arg Asn Cys Arg Asp Leu Lys
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Glu Thr Gly Glu Thr Cys Ile Ser Ala Asn Pro Leu Asn Val Pro
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Arg Lys His Trp Trp Thr Asp Ser Ser Ala Glu Lys Lys His Val
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Trp Phe Gly Glu Ser Met Asp Gly Gly Phe Gln Phe Ser Tyr Gly
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Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Gln Leu Ala Phe
 1190 1195 1200

Leu Arg Leu Leu Ser Ser Arg Ala Ser Gln Asn Ile Thr Tyr His
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 Cys Lys Asn Ser Ile Ala Tyr Met Asp Gln Ala Ser Gly Asn Val
 1220 1225 1230
 Lys Lys Ala Leu Lys Leu Met Gly Ser Asn Glu Gly Glu Phe Lys
 1235 1240 1245
 Ala Glu Gly Asn Ser Lys Phe Thr Tyr Thr Val Leu Glu Asp Gly
 1250 1255 1260
 Cys Thr Lys His Thr Gly Glu Trp Ser Lys Thr Val Phe Glu Tyr
 1265 1270 1275
 Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp Ile Ala Pro
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